

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<b>Patent Plagues</b> 	 <b>JP11354136A2: FUEL CELL, SEPARATOR FOR FUEL CELL, AND MANUFACTURE THEREFOR</b> <a href="#">View Images (1 pages)</a>   <a href="#">View INPADOC only</a>
Country:	JP Japan
Kind:	A2 Document Laid Open to Public Inspection
Inventor(s):	TASHIRO AKITSUGU HASUDA HARUFUMI SEKI TOMONORI FUJITA ATSUSHI
Applicant(s):	HITACHI CHEM CO LTD <a href="#">News, Profiles, Stocks and More about this company</a>
Issued/Filed Dates:	Dec. 24, 1999 / March 17, 1999
Application Number:	JP1999000071779
IPC Class:	H01M 8/02; H01M 8/10;
Priority Number(s):	April 7, 1998 JP1998000094441
Abstract:	<p><b>Problem to be solved:</b> To easily manufacture a separator, excellent in electrical resistance, gas permeability, liquid swelling properties, and mechanical strength, and satisfactory in moldability, by molding expanded graphite powder having a specific average grain size and mixed with a resin.</p> <p><b>Solution:</b> Expanded graphite powder having an average grain size of 50 <math>\mu\text{m}</math> or more is previously manufactured and mixed with a resin, and the mixture is molded into a separator. If the average size of the expanded graphite powder is less than 50 <math>\mu\text{m}</math>, the separator is larger in electrical resistivity and inferior in mechanical characteristics, and therefore 80 to 500 <math>\mu\text{m}</math> is preferable. As the expanded graphite powder, expanded graphite having worm-like shapes and compression characteristics, can be obtained, for example, by immersing graphite in a solution with an acid constituent, thereby producing a graphite interlayer compound, rinsing the graphite, and rapidly heating it so as to cause graphite crystals to extend in the C axis direction. This graphite is worked into a sheet-like shape and then pulverized. As the resin, a non-solvent liquid epoxy resin, a solid epoxy resin, a melamine resin, an acryl resin, a phenol resin, a polyamide resin, and the like are used.</p> <p>COPYRIGHT: (C)1999,JPO</p>
Other Abstract Info:	CHEMABS 132(05)052411Y CHEMABS 132(05)052411Y
Foreign References:	(No patents reference this one)

NP 71

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 11354136 A

(43) Date of publication of application: 24 . 12 . 99

(51) Int. Cl

H01M 8/02

H01M 8/10

(21) Application number: 11071779

(22) Date of filing: 17 . 03 . 99

(30) Priority: 07 . 04 . 98 JP 10 94441

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(54) FUEL CELL, SEPARATOR FOR FUEL CELL,  
AND MANUFACTURE THEREFOR

(57) Abstract:

PROBLEM TO BE SOLVED: To easily manufacture a separator, excellent in electrical resistance, gas permeability, liquid swelling properties, and mechanical strength, and satisfactory in moldability, by molding expanded graphite powder having a specific average grain size and mixed with a resin.

SOLUTION: Expanded graphite powder having an average grain size of 50  $\mu\text{m}$  or more is previously manufactured and mixed with a resin, and the mixture is molded into a separator. If the average size of the expanded graphite powder is less than 50  $\mu\text{m}$ , the

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